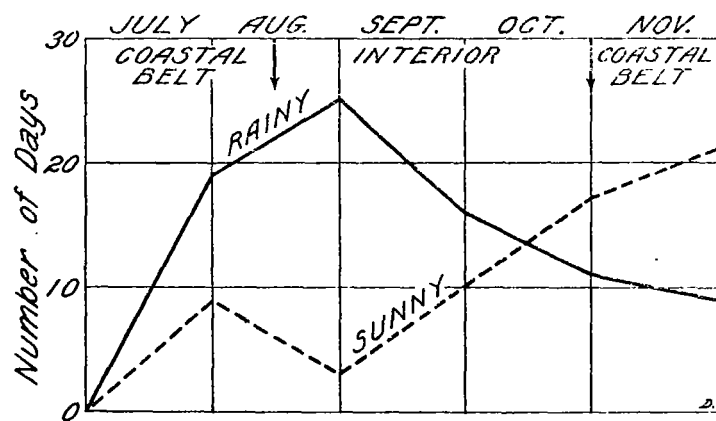


CLIMATE OF LIBERIA¹

By HAROLD J. COOLIDGE, Assistant Zoologist on the Expedition
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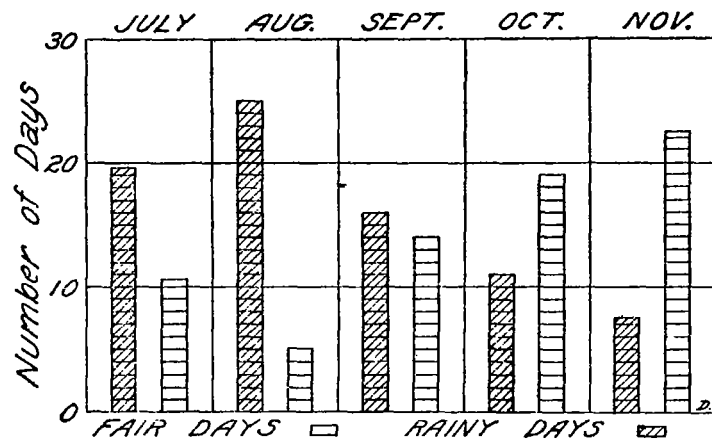
The rainy season was well under way in July and except for a let up of a week or 10 days in late July (a period known as the middle dries), it continued until some time in October. The dry season was well begun in November. The latter part of September and in October there were frequent thunder showers, usually in the late afternoon.



KEY TO DIAGRAMS

I. Curve to show days of rain during our visit, and curve to show days of sun during our visit

According to Sir Harry Johnston, September and October have the reputation of being the most unhealthy months and February the coolest and driest. On February 3, 1905, the shade temperature at Mount Barclay, 20 miles from Monrovia, registered 100° F. at 2.30 p. m. The average annual rainfall in the coast

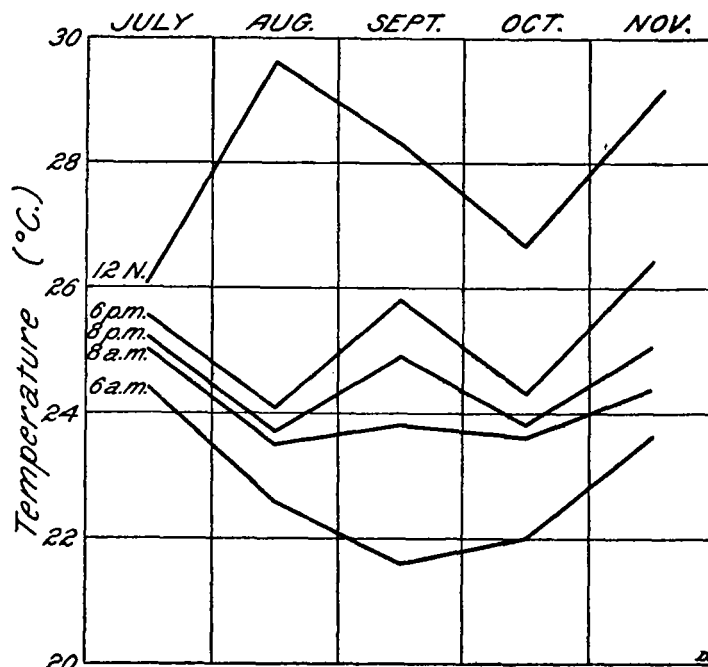


II. Lines to show proportion of days of rain to days of no rain by months

regions of western Liberia is about 153 inches. In 1905 the greatest precipitation in 24 hours at Mount Barclay was nearly 8½ inches, while the amount by the month was 5 inches in January, ½ inches in February, 1½ inches in March, 5¼ inches in April, 19 inches in May, 33 inches in June, 22 inches in July, 29 inches in August, 17 inches in September, 8 inches in October, 6 inches in November, 5 inches in December.²

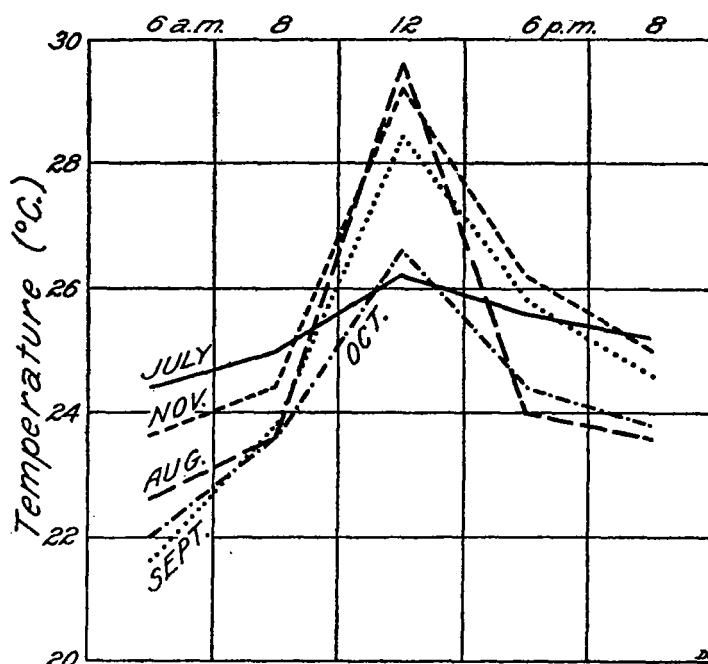
The distinct advantages of visiting Liberia in the rainy season are two. One, Liberia is usually shaded

from the direct light of the sun by a blanket of clouds, even at noon. Two, the range of temperature in every



III. Curve to show comparative trend of temperature at specified hours in different months

24 hours is not great and the average day temperature is cooler than during the months of the dry season.



IV. Curve to show comparative monthly trend of temperature at specified hours of the day

On the other hand there are discomforts that go with traveling during the rains in a country where as yet many of the trails are stream beds. Most of the native bridges

¹ The Harvard African Expedition, lead by Dr. Richard Strong, visited Liberia from July 7 to Nov. 21, 1926.

² From Liberia, Vol. I, Sir Harry Johnston.

are carried away by the swollen streams. Many of the native houses have leaky roofs. Walking long distances or making collections in the bush is often disagreeable, to say nothing of trying to dry specimens of animal skins or plants. The most unpleasant thing of all is probably the extremely high relative humidity which reaches as much as 98 per cent. At such times there is very little evaporation of moisture from the human body, and every chance for rust or mold to act on one's equipment.

* * * * *

Meteorological observations are of little value when one is no great length of time in one place. During July and half of August we were in the coast region. From the middle of August until nearly the end of October in the interior, and again on the coast for two weeks in November. At no time did we reach an altitude over 1,100 feet above sea level.

Observations at Monrovia and on the Dua River during July and August gave an approximate relative humidity average of 75 per cent at 8 a. m. and 90 per cent at 8 p. m. This daily change of 15 per cent was quite constant. The dew point averaged about 72° F.

The prevailing wind was southerly, usually more noticeable in the early morning. Toward sunset often a light breeze would come in from the north or east. Except for a few sharp squalls, preceding thunder showers in September, the breeze was usually light. There was distinctly more near the coast than in the interior.

During July, August, and part of September the sky was generally covered with slow moving and often low hanging heavy clouds. They were almost always moving north or northwestward. Roughly the amount of clouds covering the sky would be about eight-tenths. This made the general character of every day gray or cloudy. The showers usually came in the afternoons. If it did rain in the morning, it was very apt to continue to do so all day. The heaviest rains were usually in the forenoon, late afternoon, or not long after dark.

The barometer is of no use in foretelling a shower in this country unless it is a storm of some magnitude. Every morning at 8 a. m. one would get a pressure reading of about 29.85 inches, during the day this usually fell about five-hundredths of an inch so that at 8 p. m. it would read 29.80 inches. In fact this change became so constant that one could plot a curve of daily variation and use it as a correction when measuring altitudes. No aneroid measurements without a check can be abso-

lutely accurate. (The expedition used a Green-sling psychrometer for determining the temperatures and humidity; and a Watkins 3-circle barometer for the pressure.)

WEATHER SUMMARIES

(When a day is half in half it counts half for each)

Average July temperature (°C.): 6 a. m., 24.2; 8 a. m., 25; 12 m., 26.1; 6 p. m., 25.5; 8 p. m., 25.2.
 Coolest 6 a. m., July 26, 22°; Warmest, 2 p. m., July 31, 28.5°.
 Days of rain, 15½; days of no rain, 9½; days of sun, 8.
 Average August temperature (°C.): 6 a. m., 22.6; 8 a. m., 23.5; 12 m., 29.6; 6 p. m., 24.1; 8 p. m., 23.7.
 Coolest, 6 a. m., August 1, 17.9; 12 m., August 1, 29.8; warmest, 12 m., August 13, 30.5.
 Days of rain, 25; days of no rain, 5; days of sun, 3.
 Average September temperature (°C.): 6 a. m., 21.5; 8 a. m., 23.8; 12 m., 28.3; 6 p. m., 25.8; 8 p. m., 24.7.
 Coolest, 6 a. m., September 13, 20.4; warmest, 12 m., September 18, 30.
 Days of rain, 16; days of no rain, 14; days of sun, 10.
 Average October temperature (°C.): 6 a. m., 22; 8 a. m., 23.6; 12 m., 26.7; 6 p. m., 24.3; 8 p. m., 23.8.
 Coolest, 6 a. m., October 5, 21; warmest, 2.30 p. m., October 20, 29.6.
 Days of rain, 11; days of no rain, 20; days of sun, 17.
 Average November temperature (°C.): 6 a. m., 23.5; 8 a. m., 24.4; 12 m., 29.2; 6 p. m., 26.2; 8 p. m., 25.1.
 Coolest, 6 a. m., November 3, 22.8; warmest, 12 m., November 3, 30.8.
 Days of rain, 5; days of no rain, 15; days of sun, 13.

COMPARISON

Range of temperature on an average day in Belgian Congo at Stanleyville, January 13, 1927 (°C.):	Range of temperature on an average day with rain in Liberia at Kakatown, August 22, 1926 (°C.):
7.30 a. m.----- 24.65	6.00 a. m.----- 22.4
8.30 a. m.----- 24.8	7.30 a. m.----- 22.8
9.30 a. m.----- 25.3	8.30 a. m.----- 23.3
11.00 a. m.----- 26.1	9.30 a. m.----- 23.5
1.00 p. m.----- 27.5	11.00 a. m.----- 23.4
2.00 p. m.----- 26.9	12.00 m.----- 23.8
3.00 p. m.----- 25.4	1.30 p. m.----- 24.4
4.00 p. m. (shower)----- 25.2	3.00 p. m.----- 24.7
5.00 p. m.----- 26.1	4.30 p. m.----- 24.3
6.00 p. m.----- 26.0	6.00 p. m.----- 23.3

Average temperature at various hours of the day over entire time (°C.): 6 a. m., 22.76; 8 a. m., 24.06; 12 m., 27.98; 6 p. m., 25.18; 8 p. m., 24.5.

Average daily variation, 5.22° C.

Highest temperature, 12 noon, November 3, 30.8° C. or 87.4° F.

Lowest temperature, 6 a. m., August 1, 17.9° C. or 64.22° F.

Most exceptional day (greatest variation in single day) August 1, 11.9° C.